**Comparing and contrasting properties of substances**

QUESTION: Compare and Contrast the properties of the following substances

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| **Property to compare...** | **ductile**  **and**  Soluble in cyclohexane  (non-polar solvent)  and  **conducts electricity** | **state of matter at room temperature** | **electrical conductivity** | **electrical conductivity**  **and**  **solubility**  **and**  **malleability** |
| **...between these different substances** | **Mg(s)**  **I2 (s)** | **Cl2 (g)**  **CuCl2(s)** | **Cu**  **graphite** | **Zn**  **&**  **ZnCl2** |

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| --- | --- | --- | --- | --- | --- |
| **Property to compare...** | **melting point**  **and**  **solubility** | **melting point**  **and**  **solubility** | **melting point** | **melting**  **and**  **boiling points** | **melting point**  **and**  **conductivity**  **and**  **hardness** |
| **...between these different substances** | **SiO2**  **&**  **Br2** | **MgCl2**  **&**  **SiO2** | **SiO2**  **&**  **S8** | **NaCl**  **&**  **MgCl2**  **&**  **PCl3**  **&**  **SCl2** | **CO2**  **&**  **SiO2** |

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